

### **REMARKS/ARGUMENTS**

In view of the foregoing amendments and following remarks, reconsideration of the pending claims is respectfully requested.

Claims 1 – 9 and 14 – 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of U.S. Patent No. 6,187,411 to Palmer and U.S. Patent Publication No. 2003/0037361 to Steeghs et al., and Claims 10 – 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Palmer, Steeghs, and U.S. Patent No. 3,381,420 to Brink et al.

Independent Claims 1, 16, and 23 have been amended to recite that the layer of cellular material at least partially infiltrates the fabric layers. The subject matter of these amendments was previously found in dependent Claims 3, 24, and 25, which have now been cancelled.

None of the cited references disclose or suggest a sandwich panel having a cellular core material that partially infiltrates the outer fabric layers. Such a structure is not described in Palmer, Steeghs, or Brink. In contrast to the claimed invention, Palmer teaches a sandwich panel in which the outer skins are applied to a previously formed core, and therefore the core does not partially infiltrate the outer panels. Neither Steeghs nor Brink even include a cellular core and therefore do not provide this element. Further, the previous Office Actions have failed to even address where this subject matter can be found in the cited references. Accordingly, Claims 1, 16, and 23 and any claims dependent thereon are patentable over the cited references, whether considered individually or in combination, because the references fail to disclose or suggest an insulation having a cellular core that at least partially infiltrates the fabric layers.

Further, one of ordinary skill in the art would not be motivated to combine the references as contemplated by the Examiner. As discussed in Applicants' previous response, one of ordinary skill in the art would not be motivated to combine Palmer and Steeghs for any one of the following reasons: 1) Palmer and Steeghs are directed to two completely different fields of endeavor; 2) Palmer teaches away from the proposed modification because the modification would make Palmer unsatisfactory for its intended purpose; and 3) neither Palmer nor Steeghs provide the necessary nexus for making the proposed combination.

The Examiner alleges the motivation for combining the references is present because Palmer's invention discloses tolerance for damage caused by impact from a foreign object and

Steeghs' invention is also to prevent damage from an impact. In essence, the Examiner has boiled both references down to being directed to impact resistance and therefore motivation exists. However, this reasoning is inappropriate because it fails to consider the teachings of each reference as whole. In maintaining an obviousness rejection, the teachings of the references as a whole must be considered.

In contrast to Palmer, Steeghs is directed to a loose fabric for use as bullet proof vest. A fundamental objective of Steeghs is to provide a fabric that is both drapable and wearable. Palmer on the other hand is directed a structural sandwich panel in which a high strength to weight ratio and resistance to delamination are problems to be addressed; drapability and comfort of the outer skin layers is not even a concern or a consideration. As such, one of ordinary skill in the art would not look to the teachings of Steeghs for selection of a fabric layer to use in the sandwich panel of Palmer.

Further, Palmer teaches away from the proposed modification. Palmer teaches that the use of excess resin should be avoided to help reduce the weight of the panel. See column 6, lines 8 – 9. However, Steeghs teaches a loose fabric layer that is loosely woven so that the fabric has a voluminous or three dimensional structure. In fact, Steeghs teaches that the fabric is drapable and is woven so that warp and weft fibers do not cross one another in a 1:1 ratio. As a result, the fabric layer of Steeghs is lighter and less dense, which results in a greater volume of space within the fabric. This increase in the volume of space would be even more amplified in a fabric having a honeycomb weave. The loose fabric layer of Steeghs would have a greater volume that would be filled with resin during the resin impregnation step described in Palmer, which would result in increasing the weight of the fabric panel. Thus, Palmer teaches away from the proposed modification.

In reviewing Palmer and Steeghs, it is clear that the Examiner has failed to consider the teaching of the references as a whole. In fact, it appears the Examiner is using the hindsight and Applicants' teachings to reconstruct the claimed invention, which is improper.

In view of the foregoing amendments and remarks it is respectfully submitted that independent Claims 1, 16, and 23, and any claims dependent thereon are patentable over the cited references and that the rejections under 35 U.S.C. § 103(a) have been overcome. Further, Brink also fails to cure the deficiencies of either Palmer or Steeghs and therefore the rejections

Appl. No.: 10/669,980  
Amdt.dated 02/08/2007  
Reply to Office action of 09/08/2006

under 35 U.S.C. § 103(a) based on the combination of Palmer, Steeghs, and Brink have also been overcome.

### **Conclusion**

In view of the amendments and remarks made above, Applicant submits that the pending claims are now in condition for allowance. Applicant respectfully requests that the claims be allowed to issue. If the Examiner wishes to discuss the application or the comments herein, the Examiner is urged to contact the undersigned by telephone.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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LEGAL01/13036248v1

ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON February 8, 2007.